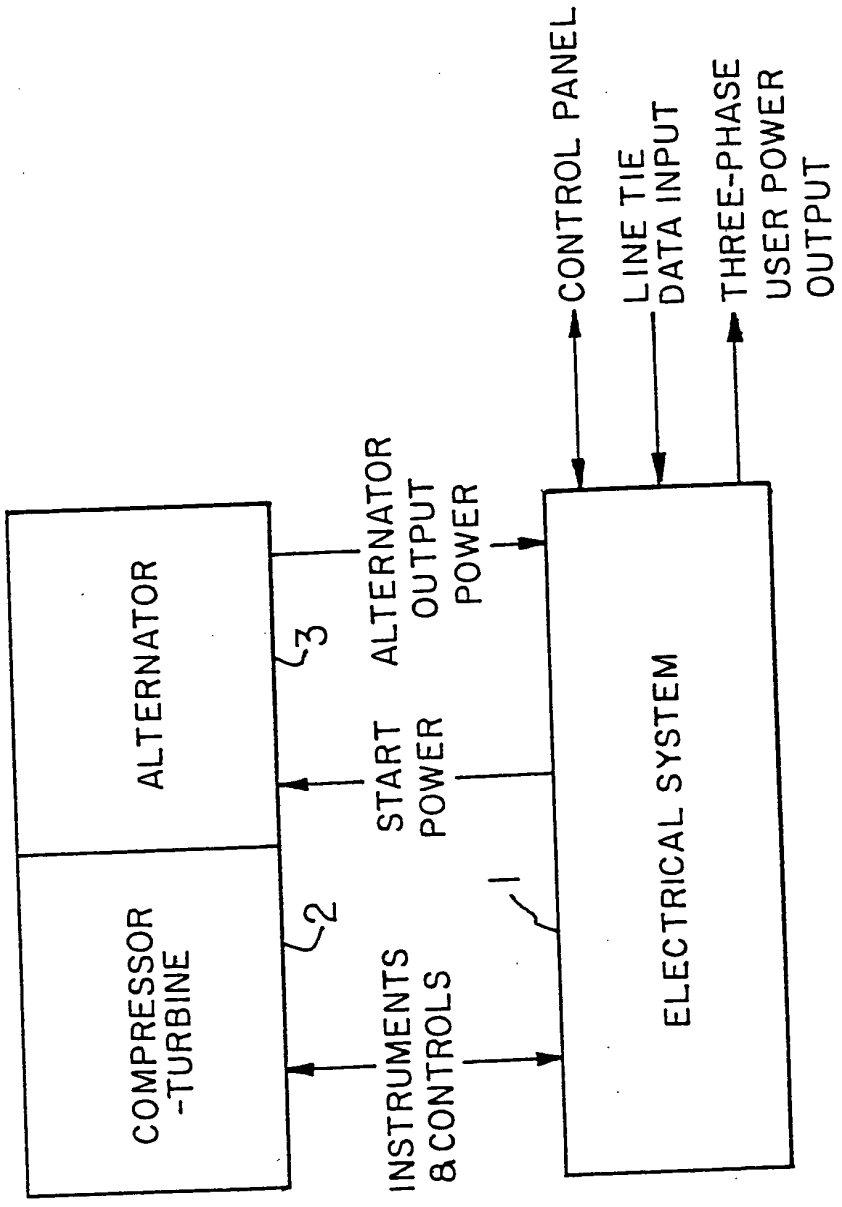
ALTERNATOR
COMPRESSOR
-TURBINE
3
2
1
ALTERNATOR
OUTPUT
POWER
START
POWER
INSTRUMENTS
& CONTROLS
ELECTRICAL SYSTEM
CONTROL PANEL
LINE TIE
DATA INPUT
THREE-PHASE
USER POWER
OUTPUT

FIG. 1

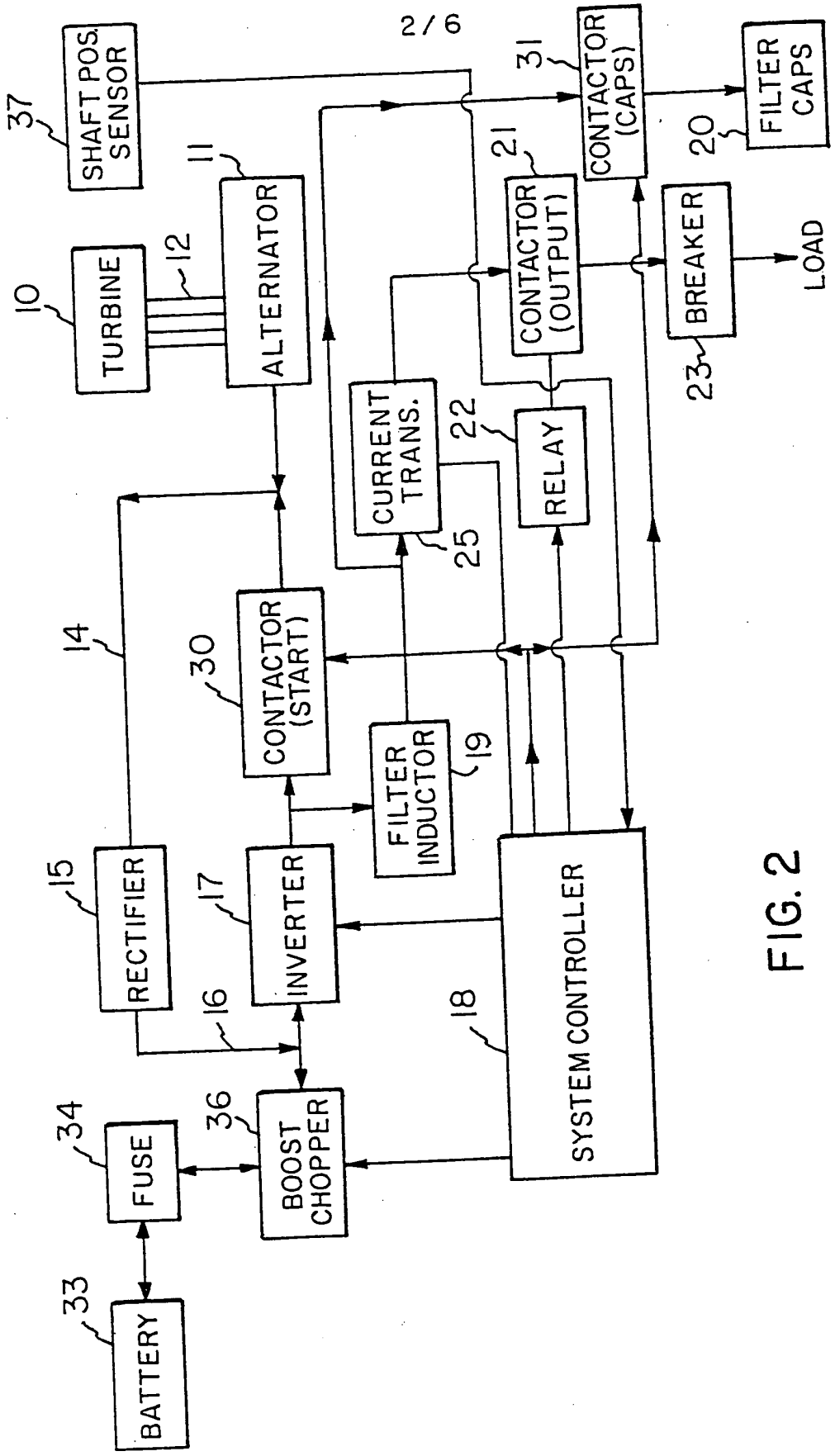
SHAFT POS. SENSOR
37
TURBINE
10
12
ALTERNATOR
11
CONTACTOR (CAPS)
31
FILTER CAPS
20
CONTACTOR (OUTPUT)
21
BREAKER
23
LOAD
CURRENT TRANS.
25
RELAY
22
14
CONTACTOR (START)
30
FILTER INDUCTOR
19
15
RECTIFIER
17
INVERTER
16
18
SYSTEM CONTROLLER
34
FUSE
36
BOOST CHOPPER
33
BATTERY

FIG. 2

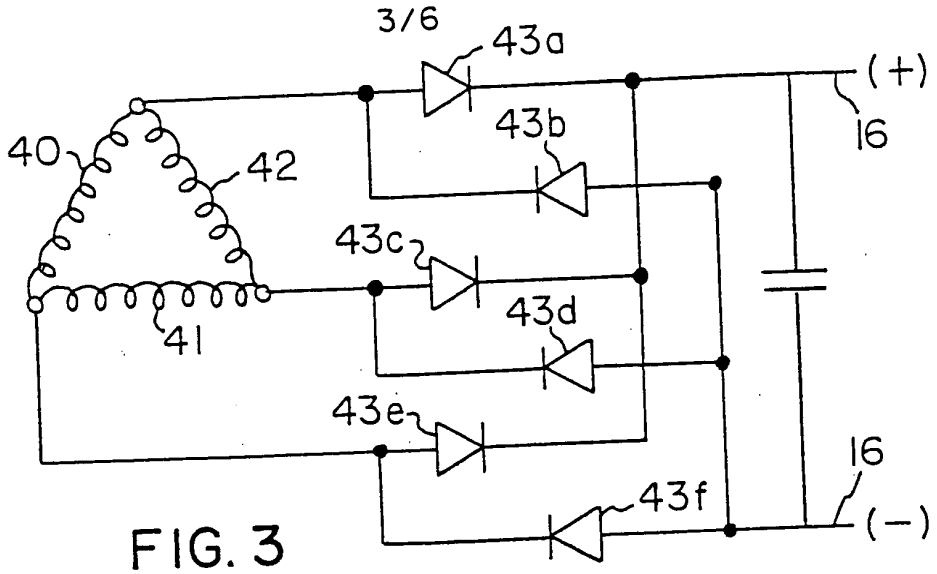

FIG. 3

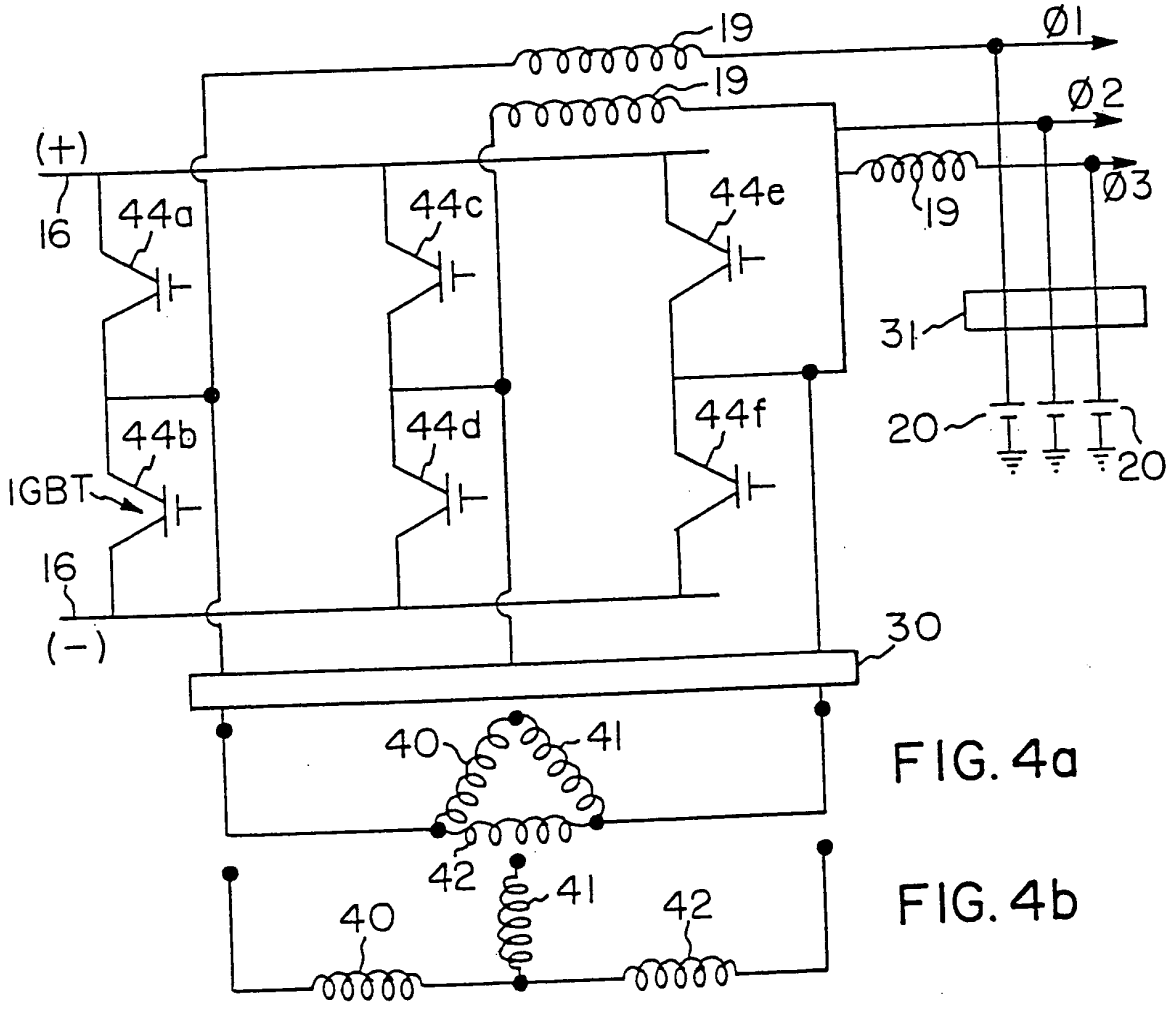

FIG. 4a

FIG. 4b

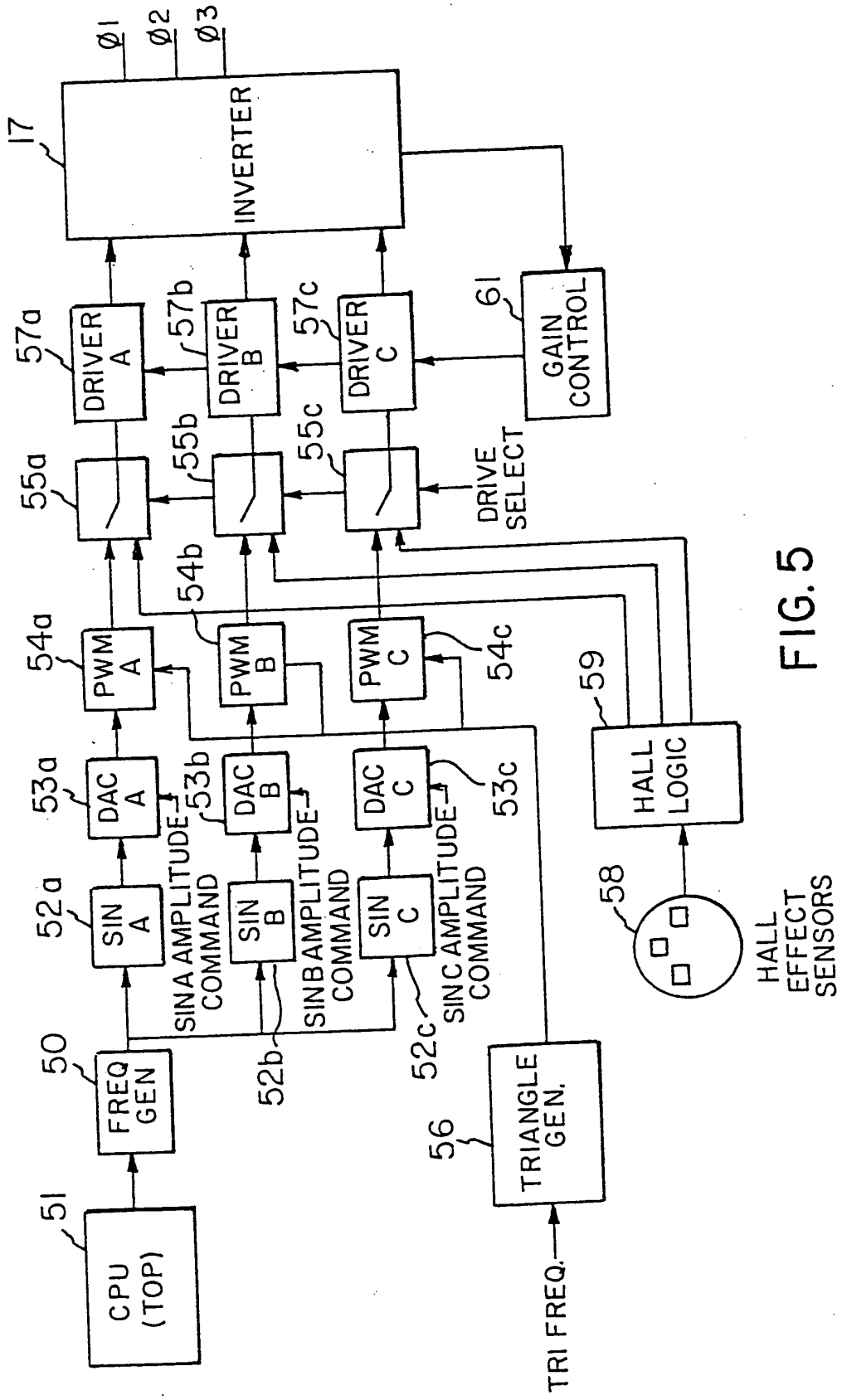
Ø1
Ø2
Ø3
17
INVERTER
57a
DRIVER A
57b
DRIVER B
57c
DRIVER C
61
GAIN CONTROL
55a
55b
55c
DRIVE SELECT
54a
PWM A
54b
PWM B
54c
PWM C
59
HALL LOGIC
53a
DAC A
53b
DAC B
53c
DAC C
52a
SIN A
52b
SIN B
52c
SIN C
SIN A AMPLITUDE COMMAND
SIN B AMPLITUDE COMMAND
SIN C AMPLITUDE COMMAND
58
HALL EFFECT SENSORS
50
FREQ GEN
56
TRIANGLE GEN.
51
CPU (TOP)
TRI FREQ.

FIG. 5

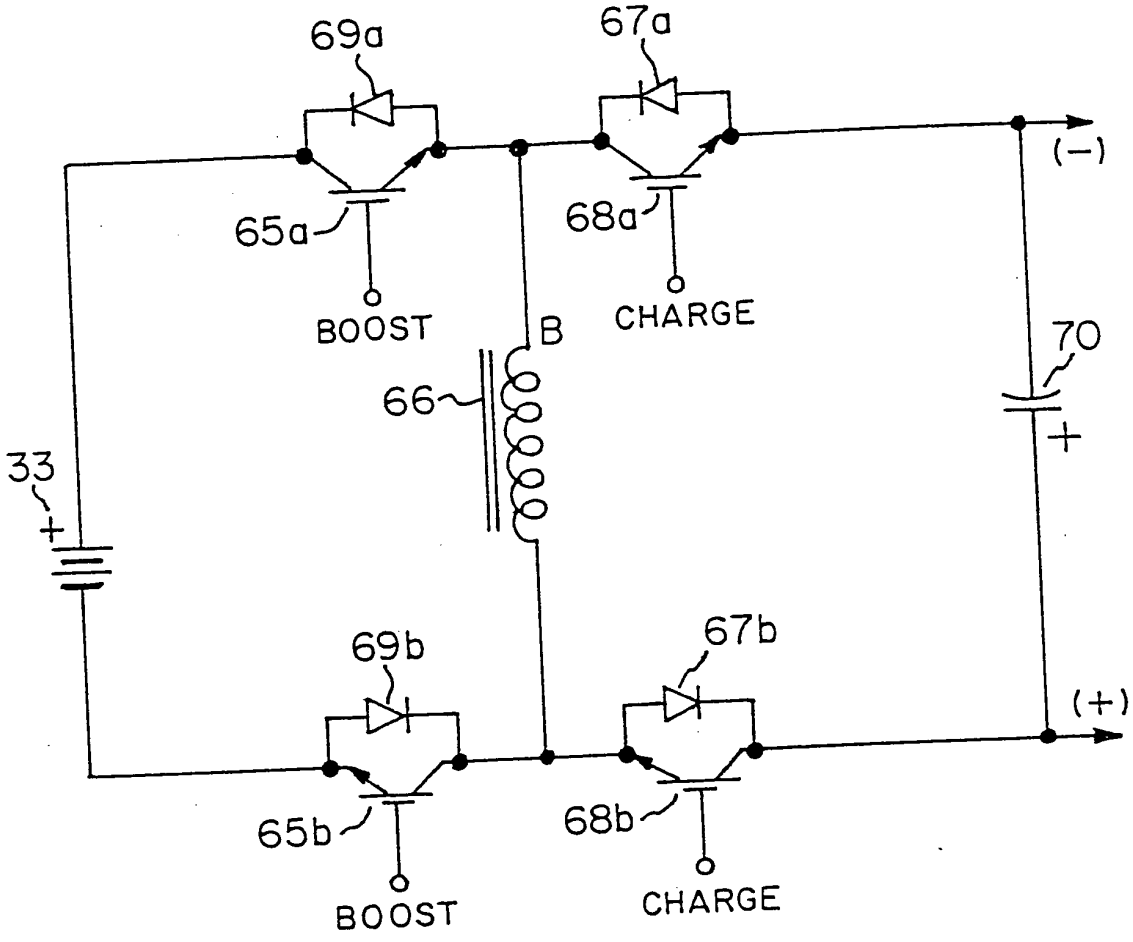
69a
67a
(−)
65a
68a
BOOST
CHARGE
B
70
66
+
33
+
69b
67b
(+)
65b
68b
BOOST
CHARGE

FIG. 6

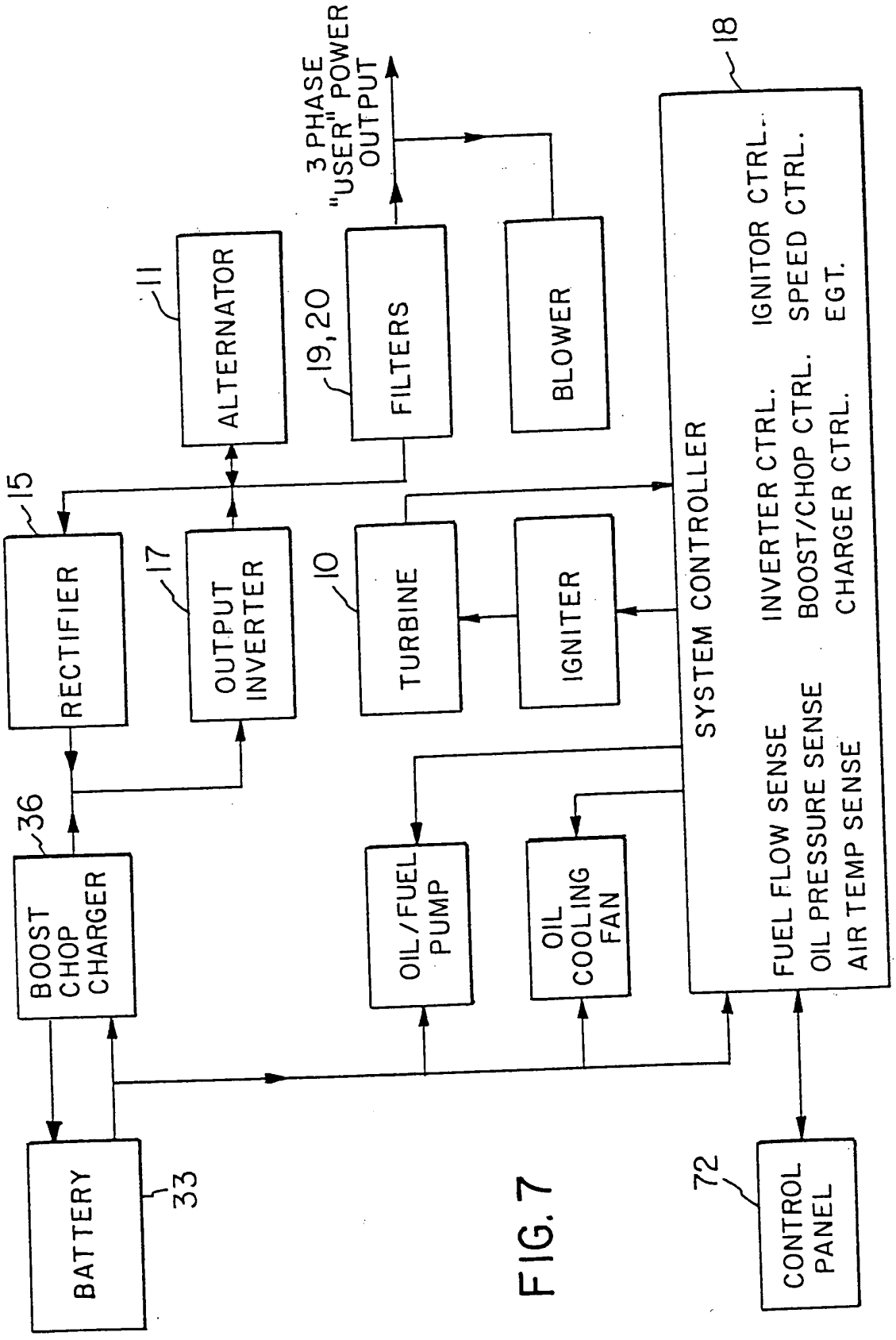
3 PHASE "USER" POWER OUTPUT
18
11
ALTERNATOR
19, 20
FILTERS
BLOWER
IGNITOR CTRL.
SPEED CTRL.
EGT.
SYSTEM CONTROLLER
INVERTER CTRL.
BOOST/CHOP CTRL.
CHARGER CTRL.
15
RECTIFIER
17
OUTPUT INVERTER
10
TURBINE
IGNITER
FUEL FLOW SENSE
OIL PRESSURE SENSE
AIR TEMP SENSE
36
BOOST CHOP CHARGER
OIL/FUEL PUMP
OIL COOLING FAN
BATTERY
33
72
CONTROL PANEL

FIG. 7